9297
WIRE DRAG

Diag. Cht. No. 1219-2.

NOAA FORM 76-35A

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

DESCRIPTIVE REPORT
(HYDROGRAPHIC)

Type of Survey Wire Drag

Field No. RH-20-4-72

Office No. H-9297

LOCALITY

State New Jersey

General Locality Cape May

Locality Wildwood to Cape May Inlet

1972

CHIEF OF PARTY
James Collins

LIBRARY & ARCHIVES

DATE 6-27-73

☆U.S. GOVERNMENT PRINTING OFFICE: 1974-763-098

9297
WIRE DRAG

FORM C&GS-537 (5-66)

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

REGISTER NO. H-9297 WD

INSTRUCTIONS - The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

FIELD NO. RH-20-4-72

State NEW JERSEY

General locality CAPE MAY

Locality ~~CAPE MAY INLET~~ WILDWOOD TO CAPE MAY INLET

Scale 1:20,000 Date of survey 10 MAY 72 - 13 JUNE 72

Instructions dated 10 MARCH 72 Project No. OPR-480-RH-72

Vessel NOAA SHIPS RUDE AND HECK

Chief of party CDR JAMES COLLINS

Surveyed by SHIPS' PERSONNEL L.E. Pickens, A.Y. Bryson, M.M. Etheridge & B.L. Wescott

Soundings taken by echo sounder, hand lead, ~~pole~~

Graphic record scaled by N.A.

Graphic record checked by N.A.

Protracted by Cal- Comp Plotter Automated plot by Atlantic Marine Center

Sub-divided & Inked By:

~~Soundings penciled~~ by Harry R. Smith

Soundings in ~~fathoms~~ feet at MLW ~~and MLLW~~ BASED ON ~~PREDICTED~~ Actual TIDES

REMARKS: SHEET ALSO REFERRED TO AS SHEET "F".

Applied to chart 7-21-73

~~CDB~~

USCOMM-DC 37009-P66

DESCRIPTIVE REPORT
TO ACCOMPANY
WIRE DRAG FIELD NO. RH-20-4-72
PROJECT OPR-480-RH-72
ITEM INVESTIGATION - DELAWARE BAY
1972
CDR JAMES COLLINS
NOAA SHIPS RUDE & HECK

A. AUTHORITY -

Project instructions, OPR-480-RH-72, Wire Drag and Wire Sweep, Delaware Bay Sealanes, dated 10 March 1972. Supplemental instructions dated 24 March 1972.

B. CHARACTER AND LIMITS OF THE WORK -

The purpose of this project is to locate and clear reported wrecks and obstructions hazardous to navigation in Delaware Bay. The locality of the survey covered by C&GS Chart 1219 is; Lat. 38°58'N to 38°52'N and Long. 75°00'W to 74°47'W. The survey was conducted on a scale of 1:20,000. The effective depth of items surveyed in this area ranged from 12 ft to 38 feet. Raydist DR-S navigational control (3,300.4 KHZ) was used on all days.

C. CONTROL AND SHORELINE -

A listing of all signals used is given in Attachment I. No shoreline is on the boat sheet. See Review section B

D. DATE OF SURVEY -

Dragging for OPR-480-RH-72, Sheet RH-20-4-72 began 10 May 72 and was terminated 13 June 72.

E. TIDAL REDUCERS -

Preliminary reduction of each days data was made using predicted tides for the standard gauge at Sandy Hook, New Jersey, Lat. 40°28'N, Long. 74°01'W.

The predicted tides were corrected for time, with respect to Sandy Hook, as follows: A -10 minute correction was applied to the time of high water and a -20 minute correction was applied to the time of low water. There was no correction applied with respect to the height of water.

Actual tidal data for May and June 1972 is furnished

by the Rockville Office from the standard tide gauge at Atlantic City, New Jersey. This data is reduced to mean low water from the gauge datum and a corrected smooth tide tape will be made for the Verification Office at AMC. See Attachment II, Tidal Notes, for hourly heights and the correctors for smooth tides.

F. JUNCTIONS -

Sheet RH-20-4-72 (H-9297 WD) has only item work and does not junction with any other sheet.

G. SPLITS -

No splits occurred on this sheet ~~RH-20-4-72.~~

H. GROUNDINGS AND HANGS -

See Attachment III, List Of Groundings And Hangs.

I. GENERAL NOTES -

Morning and evening Raydist calibrations at Lewes, Delaware, were made by running the Lewes West Oil Factory Chimney - Fort Miles Observation Tower #8 range and turning the right angle to Harbor of Refuge Lighthouse.

When the ships docked at Cape May, New Jersey, calibration was accomplished by running the Cape May Harbor range and turning the right angle to the Loran Tower (Station #755 - Cape U.S. Coast Guard Electronics Mast I). See Attachment IV, Electronic Calibration Data & Daily Raydist Corrections.

In addition to daily calibrations, lane checks were made both by three point fixes and by passing navigation buoys that had been previously located by Raydist.

J. CURRENTS -

Drag strips planned with the use of C&GS Tidal Current Tables were generally satisfactory.

K. DISCREPANCIES AND COMPARISON WITH SURVEY CHARTS -

See Attachment V, Item Investigations.

L. PERSONNEL AND EQUIPMENT -

During the OPR-480-RH-72 project, the Ships Rude &

Heck acted as guide and end vessels respectively. The Rude & Heck launches, equipped with DE-723 fathometers, were alternated as the drag tender. During calm weather, the Rude & Heck skiffs were used to tend the drag. Reconnaissance hydrography was done by both ships strictly for the purpose of determining upright settings. Cuts to the end buoy and opposite vessel were made by gyro repeaters.

The distance from the Raydist mast to the end buoy was 265 meters when an 800 foot towline was used. Standard wire drag equipment was used throughout the survey. Maximum length of drag used was 10,200 feet while 3,000 feet was the minimum.

Course changes are now being recorded on the fix only rather than just making note of changes of ten degrees or more. By giving the headings of the ships every five minutes, it is felt that this sufficiently illustrates the ships paths through the water and their resultant effect on the drag.

Officers on board during OPR-480-RH-72 work were: CDR J. Collins, LCDR L.E. Pickens, LT A.Y. Bryson, LTJG M.M. Ethridge, and ENS B.L. Wescott.

M. MISCELLANEOUS -

No problems occurred during the work on this portion of OPR-480-RH-72. All work was carried out as scheduled.

N. RECOMMENDATIONS -

Item D, the wreck of F/V Eleanor Warren was located at latitude 38°54'32"N, longitude 74°45'28"W. It has been cleared by wire drag to an effective depth of 28 feet. ~~based on predicted tides.~~

Item F, a 44-foot barge was located at latitude 38°56'28"N, longitude 74°50'09"W. It was cleared by wire drag to an effective depth of 20 feet based on ~~predicted~~ actual tides.

Items D & F should be charted as cleared to final smooth ~~effective~~ depths. Concur

It is felt that Item G and the charted wreck symbol which are located approximately at latitude 38°58'N and longitude 74°49'W have been sufficiently disproven. The wreck symbol should be removed from the C&GS charts and this area should be considered free of obstructions to within two feet of the charted bottom. Concur

APPROVAL SHEET

All records of this survey prior to smooth plotting are hereby approved. The OPR-480-RH-72 field work was personally supervised by the undersigned and the boat sheet and records were inspected daily. This survey with respect to Items D, F, and G is considered complete and adequate for charting.

for Leonard E Parker

James Collins
Commanding Officer
NOAA Ships RUDE & HECK

LIST OF ATTACHMENTS

ATTACHMENT I

A. RAYDIST CONTROL SIGNALS

STATION NAME	LATITUDE	LONGITUDE	REMARKS
CHAP	38°47'29.9108"N	75°05'23.9437"W	Located on Cape Henlopen - Not Recoverable.
FEN	38°27'13.0889"N	75°03'13.2264"W	Located on Fenwick Island - Not Recoverable.

B. CONTROL SIGNALS

NAME	STATION	SOURCE	YEAR	REMARKS
FACT	LEWES WEST OIL FACTORY CHIMNEY	G-13691	1962	LEWES RANGE
OBS 8	FT. MILES OBSERVATION TOWER #8	G-13691	1962	LEWES RANGE
HARB	HARBOR OF REFUGE LIGHT HOUSE	G-3016	1927	LEWES RIGHT OBJECT
REAR RANGE	CAPE MAY HARBOR REAR RANGE	*SEE NOTE BELOW		CAPE MAY RANGE
FRONT RANGE	CAPE MAY HARBOR FRONT RANGE	*SEE NOTE BELOW		CAPE MAY RANGE
755	LORAN TOWER (CAPE MAY U.S. COAST GUARD ELECTRONICS MAST I)	G-12973	1962	CAPE MAY RIGHT OBJECT

*NOTE: DATA CONCERNING THE LOCATION OF CAPE MAY RANGE HAS BEEN INCLUDED ALONG WITH OTHER DATA TRANSMITTED TO AMC FOR VERIFICATION FROM DESCRIPTIVE REPORT FIELD NO. RH-20-3-70, (H-9294 W.D.) RH-20-4-71, and RH-20-3-72. THE LOCATIONS ARE:
H-9295 W.D. H-9296 W.D.

NAME	LATITUDE	LONGITUDE
REAR RANGE	38°57'31.285"N	74°52'42.660"W
FRONT RANGE	38°57'14.807"N	74°52'56.305"W

8/26/75

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

TIDE NOTE FOR HYDROGRAPHIC SHEET

Processing Division: Atlantic Marine Center:

Hourly heights are approved for Form 411

Tide Station Used (NOAA Form 77-12): Atlantic City

Period: May 10 - June 13, 1972

HYDROGRAPHIC SHEET: H-9297 WD

OPR: 480

Locality: Off Cape May

Plane of reference (mean ~~lower~~ low water): 4.53 ft.

Height of Mean High Water above Plane of Reference is 4.1 ft.

Remarks: Time Corrections:

HW	LW
+11 min.	+16 min.

(Verification of 2 Sounding Volumes - Form 411)

James R Hubbard
for Chief, Tides Branch

ATTACHMENT II

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Rockville, Md. 20852
NATIONAL OCEAN SURVEY

Date: December 12, 1972

Reply to Attn of: C3312-354-TIB

Subject: Cape May Offshore Tidal Data - May and June 1972

To: Commanding Officer
NOAA Ships RUDE & HECK

Enclosed are hourly heights for Atlantic City, New Jersey. This is a bit closer to your area of interest. Times at Wildwood Beach, New Jersey are slightly later than Atlantic City: HW + 11 min., LW + 16 min. Heights are the same. This time difference will apply to the two nearshore wrecks marked on your chartlet. For the F/V Eleanor Warren, time of high water will be the same as Atlantic City and time of low water will be five minutes later. There is no correction for heights.

Sincerely,

Jack E. Fancher, II

Jack E. Fancher
Oceanographer

ATTACHMENT III

GROUNDINGS & HANGS

POSITION NO. & DAY LETTER	LATITUDE	LONGITUDE	GROUNDED EFFECTIVE DEPTH	CLEARED BY STRIP NUMBER	CLEARED EFFECTIVE DEPTH	SOUNDING	CHARTED DEPTH	ITEM NUMBER	REMARKS
✓ 27A	38°56'28"	74°50'09"	32	H-1 D-2 F-1	21 19 20	21 --	34 34	--	HUNG ITEM F
✓ 10B	38°55'00"	74°46'30"	42	--	--	--	≈40	--	CHARTED SHOAL AROUND ITEM D
✓ 25C	38°54'23"	74°45'39"	38	B-1	37	--	--	--	ANTICIPATED GROUNDING
✓ 30C (Ic)	38°54'32"	74°45'28"	38	D-1	28	30	--	"D"	HUNG ITEM D
✓ 19F	38°55'47"	74°51'23"	19	--	--	--	36	--	HUNG NAV BUOY "2CM" NORTH TO SOUTH DIRECTION
✓ 19-28G	38°58'50"	74°48'00"	14-15	NA	NA	--	12	--	ANTICIPATED GROUNDING
✓ 44G	38°55'47"	74°51'23"	26	--	--	--	36	--	HUNG NAV. BUOY "2CM" SOUTH TO NORTH DIRECTION
✓ 18H	38°57'00"	74°49'00"	20	E-1	15	--	16	--	ANTICIPATED GROUNDING
✓ 25H	38°58'18"	74°48'12"	21	A-1	13	--	20		ANTICIPATED GROUNDING

ATTACHMENT ~~VI~~ IV

DAILY RAYDIST CORRECTIONS

DATE	DAY LETTER	SHIP RUDE RED	SHIP RUDE GREEN	SHIP HECK RED	SHIP HECK GREEN
10 MAY 72	A	0.0	-0.3	+0.1	+0.3
30 MAY 72	B	+0.2	+0.6	+0.2	+0.2
31 MAY 72	C Strip 1	0.0	+0.3	+0.2	+0.3
31 MAY 72	C Strip 2	0.0	+0.3	+0.2	+0.3
1 JUNE 72	D Strip 1	+0.3	+0.5	+0.4	+0.5
1 JUNE 72	D Strip 2	+0.3	+0.5	+0.4	+0.5
2 JUNE 72	E	0.0	0.0	+0.1	0.0
5 JUNE 72	F	-0.1	-0.1	+0.1	+0.1
12 JUNE 72	G Strip 1	0.0	-0.2	+0.3	+0.1
12 JUNE 72	G Strip 2	0.0	-0.2	+0.3	+0.1
13 JUNE 72	H	0.0	+0.3	+0.1	+0.1

ATLANTIC MARINE CENTER

ELECTRONIC CONTROL PARAMETERS

1. Project # OPR-480 2. Reg. # H-9297 WD 3. Field # RH-20-4-72

4. Type of Control RAYDIST (Hi-Fix, Raydist, EPI, etc.)

5. Frequency 3300.4 KHz (for conversion of electronic lanes to meters)

6. Mode of Operation (check one):

Range-Range [XX]

Range One (R_1)
Station I.D. CHAP
Range Two (R_2)
Station I.D. FEN

Range-Visual [ ]

Lat. 38 ° 47 ' 29.9108"
Long. 75 ° 05 ' 23.9437"
Lat. 38 ° 27 ' 13.0889"
Long. 75 ° 03 ' 13.2264"

Hyperbolic (3-station) [ ]

Slave One
Station I.D. _____
Master
Station I.D. _____
Slave Two
Station I.D. _____

Hyper-Visual [ ]

Lat. ° ' "
Long. ° ' "
Lat. ° ' "
Long. ° ' "
Lat. ° ' "
Long. ° ' "

7. Location of Survey:

Range-Range [XX] Imagine an observer is standing at R_1 Station and looking directly at R_2 (check one):

Survey area is to observer's Right [ ] A=Ø

Survey area is to observer's Left [XX] A=1

Hyperbolic [ ] Looking from survey area toward Master Station:

Slave One must be to observer's Left.

Slave Two must be to observer's Right.

8. [XX] This form is submitted as an aid in preparing a boat sheet.

[ ] This form applies to all data on this survey.

[ ] This form applies to part of the data on this survey.

Vessel EDP #	From Time	From Day	To Time	To Day	Position Numbers (inclusive)	
						to
						to
						to

9. Remarks: 2 EACH

ATTACHMENT V

ITEM INVESTIGATION

ITEM D - The wreck (30 feet rep.) charted in latitude 38°54.53', longitude 74°46.50', originates with NM33 (1967) and is the F/V ELEANOR WARREN, sunk bottom up with 30 feet of water over it.

This obstruction was hung at an effective depth of 38 feet by strip 2 on C Day, 31 May 72. Divers report that the wreck would be hung from any direction that the wire approached it. The least depth obtained by fathometer was ~~30'~~ 29' MLW (corrected for seas and ~~predicted~~ actual tides). This obstruction was cleared to an effective depth of ~~28~~ 20 feet ~~(based on predicted tides)~~, by strip one on ~~D~~ day, ~~1 June~~ 1972.

Stet

This wreck is located at latitude 38°54'32"N and longitude 74°45' 28"W. It is recommended that the wreck be charted at this position. Concur

ITEM F - (Barge) A 44 foot barge covered by a depth of 19 feet reported sunk in depths of 30 feet. The approximate position is latitude 38°56.9'N, longitude 74°50.13'W. Source is LN to M 5-72.

This Barge was hung at an effective depth of ~~32~~ 30 feet by strip 2 on A day, May 10, 1972. Least depth obtained by divers lead line was 21 feet MLW. The barge is stuck into the bottom at an angle. Divers determined that the best point of approach to keep the wire from slipping off was a course of 050°.

The barge was cleared to ~~19~~ 21 feet by strip ~~2~~ 1 on ~~D~~ H day, ~~1~~ 13 June 72. ~~and to 20 feet by strip 1 F day, 5 June 1972, and to 19 feet effective on G day, strip 1, 12 June 72.~~ 20

The barge is located at latitude 38°56'28"N and 74°50'09"W. It is recommended that the wreck be charted at this position shown. The strip clearing this obstruction to ~~20~~ 21 feet ~~was run in~~ approximately follows the recommended course, ~~same direction as the barge was sloping,~~ thus clearing it from its steepest side of approach.

ITEM G (Flying Dolphin) - A sail boat approximately 30 feet long which was reported to have burned to the water line and sunk as per telephone conversation with the Coast Guard. Its approximate position was reported to be 38°58'N and 74° 49'W.

This item was covered by wire drag ~~effectively~~ to within 2 feet of the general bottom and we failed to hang any object within the limits of the search area. (Cleared to an effective depth of 17 ft.)

ATTACHMENT V

ITEM INVESTIGATION
(cont'd)

It is felt that this area has been sufficiently covered to disprove the existence of any wreck or obstruction within a one mile circle of position 38°58'N and 74°49'W. It is further recommended that the wreck symbol plotted on C&GS Charts at this approximate position be removed. Concur

ATTACHMENT ~~IV~~ VI

FLOATING AIDS TO NAVIGATION

NAME	LATITUDE	LONGITUDE	REMARKS
BUOY "2CM"	38°55'47"	74°51'23"	SEE POSITION NO. & DAYLETTER 19F AND 44G, ATTACHMENT III

ATTACHMENT VII

STATISTICS

DATE	DAY LETTER	STRIP NO.	VOLUME NO.	NUMBER OF POSITIONS	L.N.M.	S.N.M.
10 MAY 72	A	1	I	30	4.2	4.2
30 MAY 72	B	1	I	17	1.7	2.4
31 MAY 72	C	1	I	19	1.1	0.7
31 MAY 72	C	2	I	11	1.2	0.7
1 JUNE 72	D	1	I	9	0.9	0.4
1 JUNE 72	D	2	I	10	1.4	1.3
2 JUNE 72	E	1	I	53	5.7	5.1
5 JUNE 72	F	1	I	13	1.8	1.8
12 JUNE 72	G	1	II	28	3.8	3.8
12 JUNE 72	G	2	II	19	1.9	1.5
13 JUNE 72	H	1	II	30	4.5	4.0
TOTALS				239	28.2	25.9

CAM3-1
2-18-71

ATLANTIC MARINE CENTER

PROJECTION PARAMETERS

POLYCONIC OR MODIFIED TRANSVERSE MERCATOR

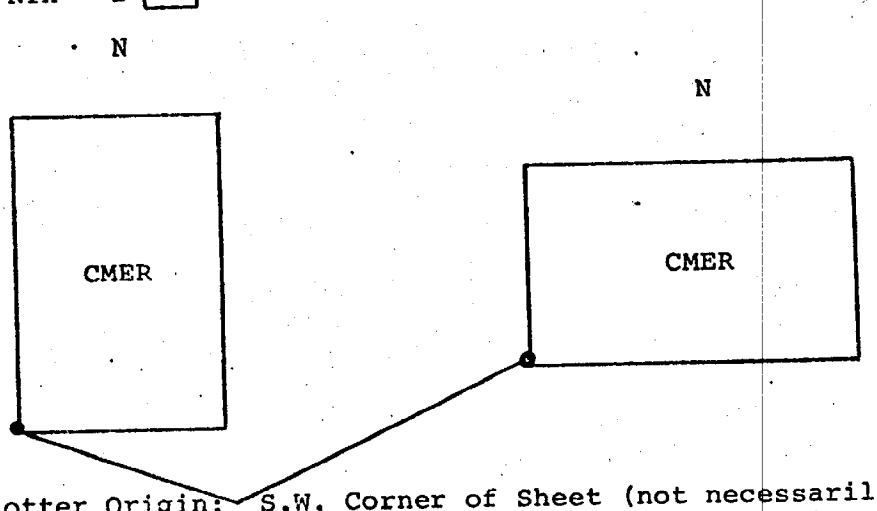
1. Project No. OPR 480
2. Reg. No. H-9297 WD
3. Field No. RH-20-4-72
4. Requested By WLJ
5. Ship or Office VERIFICATION
6. Date Required ASAP

7. Polyconic [X] Modified Transverse Mercator [ ]
8. Central Meridian of Projection 74 ° 50 ' 00 "
9. Survey Scale: 1: 20,000
10. Size of Sheet (check one):

    36 x 54 [ ] 36 x 60 [ ] Other [ ] Specify 36 x 46

11. Sheet Orientation (check one):

    NYX = 1 [ ] NYX = Ø [X]



12. Plotter Origin: S.W. Corner of Sheet (not necessarily a grid intersection)

    Latitude 38 ° 52 ' 00 "
    Longitude 74 ° 58 ' 20 "

13. G.P.'s of triangulation and/or signals attached [X]
14. Material Desired: Tracing Paper [ ] Mylar [ ]

    Smooth Sheet [X] Other [ ] Specify

15. Remarks: Plot triangulation station nbr.754, Lat.38° 56' 49.0883" Long. 74° 53' 11.1857" (CAPE MAY C.G.TANK,1952-57)

WIRE DRAG SURVEY H-9297 (RH 20-4-72WD)

1 Smooth Sheet

1 Smooth A&D Sheet

1 Preliminary A&D Sheet (Prepared by Verification)

2 Mylar boat sheets

2 Rough A&D sheets (Prepared by field)

1 Descriptive report smooth

2 Wire drag volumes (Guide Launch)

1 Wire Drag volume (End Launch)

11 Smooth drag strip tracings (prepared by Verification)

1 Envelop containing rough drag strip tracings. (Prepared by field)

1 Bundle of raydist brush recordings

1 Rough tester volume (Launch)

1 Rough tester volume (skiff)

1 Smooth tester volume (launch)

1 Daily journal

1 Folder containing raydist calibration abstracts.

1 Cahier, Smooth Tide Data -

NOAA FORM 76-155
(11-72)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

SURVEY NUMBER

H-9297 W.D.

GEOGRAPHIC NAMES

Name on Survey	A ON CHART NO.	B ON PREVIOUS SURVEY NO.	C ON U.S. QUADRANGLE MAPS	D FROM LOCAL INFORMATION	E ON LOCAL MAPS	F P.O. GUIDE OR MAP	G RAND MCNALLY ATLAS	H U.S. LIGHT LIST	K	
CAPE MAY										1
CAPE MAY CHANNEL										2
CAPE MAY INLET										3
CAPE MAY POINT										4
EPH SHOAL										5
PRISSY WICKS SHOAL										6
TWO MILE BEACH										7
WILDWOOD										8
										9
										10
										11
										12
										13
										14
										15
										16
										17
										18
					Approved by:					19
					Chas. E. Harrington					20
					Nov. 29, 1973					21
										22
										23
										24
										25

orm 946

WIRE DRAG
~~XXXXXXXXXXXX~~ Surveys (Chart Division)

WIRE DRAG
~~XXXXXXXXXXXX~~ SURVEY NO. H-9297....
(RH 20-4-72 WD)

Records accompanying survey: Smooth sheets 1 & A&D Sheet

mylar boat sheets .1 (2 parts); sounding vols. 0...; wire drag vols. 3....;
1-Field A&D Sheet (2 parts)
Descriptive Reports ..1...; graphic recorder envelopes .....;

special reports, etc. ~~See separate list of sheets and records~~.....
11-Preliminary Smooth Plots of Drag Strips, 1 Prelim. Smooth Plot of A&D Sheet & 1 Box of Misc. Data.

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet		~~478~~ 4
Number of positions checked		78...6
Number of positions revised		28...2
Number of positions revised (refers to depth only)		.N.A..
Number of soundings erroneously spaced		..N.A..
Number of signals erroneously plotted or transferred		None....
Topographic details	Time	~~None~~ 1
Junctions	Time	None... 0
Verification of soundings from graphic record	Time	.N.A...3
Special adjustments	Time	None...57

Verification by H.R. Smith / Billy J. Stephenson. Total time 134.. Date 6/5/73

Reviewed by Kenneth W. Wellman. Time .61.. Date 9-8-75

Inspected by JC Enright .22 1-7-76

ATLANTIC MARINE CENTER
APPROVAL SHEET
FOR
AUTOMATED SURVEY H-

A. All revisions and additions made on the smooth sheet during verification have been entered in the magnetic tape records for this survey. A new final position printout has/has not been made. A new final sounding printout has/has not been made.

N.A

Date: _____

Signed: _____

Title: Chief, Verification Branch

B. The verified smooth sheet has been inspected, is complete, and meets the requirements of the Hydrographic and AMC Manuals. Exceptions are listed in the verifier's report.

Date: 20 June 1973

Signed: Hugh R Bass

Title: for Chief, Processing Division

H-9297 W.D.

Items for Future Presurvey Review

The following items, discussed in sections E-1-a and E-1-c of the review, should be investigated during future wire drag work in the area:

1. Obstr, 11 ft reported charted in latitude 38°55.77', longitude 74°51.39'.

2. Submerged wreck - 10 ft reported charted in latitude 38°56.31', longitude 74°50.54'.

OFFICE OF MARINE SURVEYS AND MAPS

MARINE CHART DIVISION

HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO. H-9297 WD FIELD NO. RH-20-4-72

New Jersey, Cape May, Wildwood to Cape May Inlet

SURVEYED: May 10 - June 13, 1972

SCALE: 1:20,000 PROJECT NO.: OPR-480-RH-72

SOUNDINGS: Wire Drag and Leadline CONTROL: Raydist (Range-Range)

Chief of Party	J. Collins
Surveyed by	L. E. Pickens
	A. Y. Bryson
	M. M. Etheridge
	B. L. Wescott
Protracted by	Calcomp Plotter 618 (AMC)
Drag Strips Subdivided by	H. R. Smith
Verified and Inked by	H. R. Smith
	B. J. Stephenson
Reviewed by	K. W. Wellman
	Date: September 8, 1975
Inspected by	D. R. Engle

A. Purpose of the Survey

The purpose of this survey is to locate and clear reported wrecks and obstructions hazardous to navigation in the vicinity of the entrance to Delaware Bay.

B. Shoreline and Control

The shoreline originates with unreviewed class 1 photogrammetric surveys TP-00119, TP-00120, TP-00260, and TP-00261 of 1970/72 and TP-00132 of 1971/72. The mean high water line is shown for guidance only; its true position is shown on the above photogrammetric surveys.

Raydist electronic control, utilizing range-range mode, on frequency 3300.4 KHz, was used for position control throughout the survey.

C. Junctions

No other wire drag surveys junction with the present survey.

D. Comparison with Hydrographic Surveys

Effective depths on this wire drag survey do not conflict with depths on hydrographic surveys H-9311 (1972) and H-9153 (1970).

The comparison with H-9312 (1972) revealed numerous conflicting soundings 1 to 3 feet shoaler than cleared depths of 41 to 42 feet in the vicinity of latitude 38°54.00', longitude 74°47.00'. Inasmuch as no useful purpose would be served in an exhaustive effort to reconcile these conflicts and, further, the remaining cleared depths in the area adequately fulfill the purpose of the survey, that portion of the drag strip in conflict with H-9312 was rejected. With this revision, there are no significant conflicts between the present survey and H-9312.

E. Comparison with Charts 12214 (formerly chart 1219), latest print date March 8, 1975
12316 (formerly chart 826-SC), latest print date December 7, 1974
12317 (formerly chart 234), latest print date December 8, 1973

1. Hydrography

Except as noted below, there are no conflicts between the charted depths and the effective wire drag depths on the present survey.

Attention is directed to the following:

a. The Obstr 11 ft reported charted in latitude 38°55.77', longitude 74°51.39' originates with LNM 9/72. It is not disproved by the present survey and should be retained on the chart pending future wire drag investigation.

b. The following soundings, originating with indicated hydrographic surveys, fall in deeper cleared depths on the present survey. They are considered disproved by the present survey and should be deleted from the chart.

Charted Sounding (feet)	Latitude	Longitude	Source	Cleared Depth (feet)
13	38°58.51'	74°49.00'	H-4859 (1928)	14
14	38°58.31'	74°48.60'	H-4870 (1928)	15
15	38°58.10'	74°49.00'	" "	17
20	38°57.38'	74°48.15'	" "	21
23	38°55.86'	74°51.53'	H-9311 (1972) Boat Sheet	26

c. The submerged wreck - 10 ft reported charted in latitude 38°56.31', longitude 74°50.54' originates with LNM 26/73 subsequent to the present survey and should be retained on the chart.

d. The wreck and cleared depth of 19 ft charted in latitude 38°56.46', longitude 74°50.15' originate with preliminary information from the present survey (CL 905/72). This cleared depth has been revised to 21 feet during subsequent processing of the present survey and the chart should be revised accordingly.

e. The submerged wreck P.A. charted in latitude 38°58.00', longitude 74°49.00' originates with LNM 30/71 and CL 462/72. The present survey cleared the area to an effective depth of 17 feet (the approximate charted depth in the area) without incident. The charted wreck is considered disproved and should be deleted from the chart.

f. The two nondangerous submerged wrecks charted on chart 12214, in latitude 38°56.50', longitude 74°50.65' and latitude 38°55.96', longitude 74°51.51', originate with the U.S. Navy Wreck List of 1957. These wrecks are charted in areas which have been cleared by the present survey to depths of 20 and 26 feet respectively.

2. Aids to Navigation

The floating aid to navigation on the present survey is in agreement with its charted position and adequately marks the intended feature.

F. Condition of Survey

1. Field Work

The field work is satisfactory.

2. Records

The records are complete and comprehensive.

3. Descriptive Report

The Descriptive Report is complete except that the source of control is not adequately described in section C of the Descriptive Report.

4. Field Plotting

The survey was accurately and neatly smooth plotted.

G. Compliance with Project Instructions

This survey adequately complies with the project instructions.

H. Additional Field Work

This is considered to be a good wire drag survey and to serve the intended purpose. No immediate additional field work is recommended. However, at some future time, the obstruction, 11 feet reported and the submerged wreck, 10 feet reported discussed in paragraphs E-1-a and E-1-c respectively should be investigated by wire drag.

I. Miscellaneous

1. The verifier failed to obtain the Tide Note (Form 712), thus necessitating an examination of the survey records by the Tide Division as a condition to its acquisition during review.

2. The shoreline was inaccurately transferred to the smooth sheet. Inasmuch as it is shown for guidance only, it was not considered necessary to revise it on the smooth sheet. The delineation of the shoreline for guidance purposes does not, however, obviate the need for an accurate transfer of the shoreline to the smooth sheet during verification.

3. The verifier did not claim the maximum cleared depth in several areas of the final A&D sheet.

Examined and Approved:

R H Hoult

Chief
Marine Chart Division

Robert C. Munson

Associate Director
Office of Marine Surveys
and Maps

Signals
3½ sec., silent 1½ sec.

... and 1 dot for 60 sec., silent 120 sec.
dashes for 60 sec., silent 120 sec.

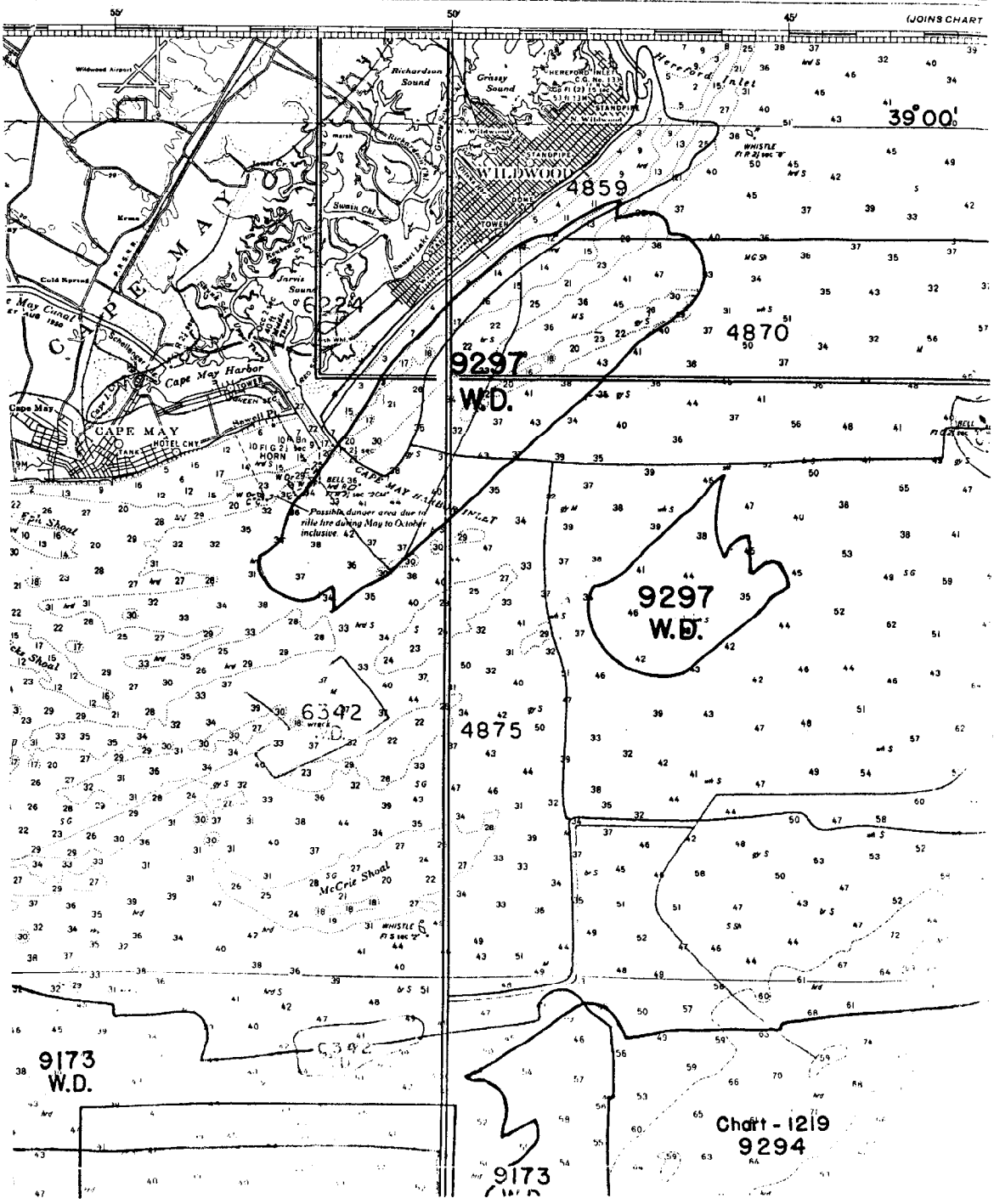
TIDES (referred to mean low water)	Cape May Pt.	Cape Henlopen	Fenwick I. Light
Mean high water	4.7 ft.	4.2 ft.	3.7 ft.
Mean sea level	2.4 ft.	2.1 ft.	1.8 ft.
Lowest tide to be expected	−3.0 ft.	−3.0 ft.	−2.5 ft.

Sept. 1947

HEIGHTS in feet above mean high wate

CAUTION
Improved channels shown by broken l
subject to shoaling, particularly at the ...

G-1948 710



FORM C&GS-8352
(9-25-63)

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-9297 W.D.

INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.
1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
234	8/15/73	B. Fernandez	~~Full~~ Part ~~Before~~ After Verification Review Inspection Signed Via
			Drawing No. ~~B~~ A Before
826	8/15/73	B. Fernandez	~~Full~~ Part ~~Before~~ After Verification Review Inspection Signed Via
			Drawing No. ~~B~~ A Before
1217	8/15/73	B. Fernandez	~~Full~~ Part ~~Before~~ After Verification Review Inspection Signed Via
			Drawing No. ~~B~~ A Before
1218	8/15/73	R.J. Duraska	~~Full~~ Part ~~Before~~ After Verification Review Inspection Signed Via
			Drawing No. A BEFORE
1219	8/15/73	B. Fernandez	~~Full~~ Part ~~Before~~ After Verification Review Inspection Signed Via
			Drawing No. A Before
1109	8/15/73	B. Fernandez	~~Full~~ Part ~~Before~~ After Verification Review Inspection Signed Via
			Drawing No. A Before
1000	7-11-74	J. Bailey	Full ~~Prev Before~~ After Verification Before Review Inspection Signed Via
			Drawing No. 51. Consider fully app'd. No hydro detail shown in area on this chart.
234	9/8/76	Richard L. Hogan	Full ~~Prev Before~~ After Verification Review Inspection Signed Via
			Drawing No. FULLY APPLIED No CORR
826-SC	9/9/76	Richard L. Hogan	Full ~~Prev Before~~ After Verification Review Inspection Signed Via
			Drawing No. FULLY APPLIED
1217	10-6-76	MIKE PANAS	Full ~~Prev Before~~ After Verification Review Inspection Signed Via
			Drawing No. FULLY APPLIED THRU 826-SC Rev 10-8-76
1218	11/8/76	Richard L. Hogan	FULL AFTER SIGNED THRU CHART 826
1219	11/10/76	Paul L. Spence	Full after signed.
1109	12/20/76	Joseph Olivera	Full after Signature thru 1219